

DEPARTMENT OF ENVIRONMENTAL PROTECTION
GREEN ACRES PROGRAM
MINIMUM SPECIFICATIONS FOR LAND SURVEYS AND PROPERTY DESCRIPTIONS
PREPARED FOR
LOCAL GOVERNMENT AND NON-PROFIT ORGANIZATION FUNDING PROGRAM

March 10, 2000

To provide uniformity in the preparation and presentation of documents as the basis for participation in Green Acres funding as interpreted from Administrative Order No. 1994-15 signed by Commissioner Robert C. Shinn, Jr. on December 29, 1994, the use of these minimum specifications by local the local unit or non-profit corporation is required in order for Green Acres to participate in the funding for professional land surveying services. This document is intended to provide the minimum acceptable specifications for land surveys and a common basis for bidding the land surveying work. This document discusses the preparation of land survey documents, and provides a uniform format for data presentation on land survey plans and the corresponding metes and bounds description that will be attached in the recorded deed and Green Acres project agreement.

KEY TO REQUIRED ELEMENTS

Note 1: REQUIRED for all Green Acres' Local and Non-Profit Surveys in order to be eligible for participation in survey costs

Note 2: DISCRETIONARY on the part of the Local Unit or Non-Profit as may be specified in the contract with survey firm. Green Acres may recommend these items, but the decision to use these in the contract is made solely by the Local Unit or Non-Profit.

Note 3: OPTIONAL as may be specified by Local Unit or Non-Profit.

A. GENERAL REQUIREMENTS: (Note 1)

All survey work will be performed in accordance with New Jersey laws and administrative codes pertaining to land surveying: NJSA 45:8 et seq., NJAC 13:40-1.1 et seq. and other laws pertaining to this professional activity as may be amended or newly enacted.

B. REFERENCE TO SPECIFICATIONS: (Note 1)

All requirements of accuracy and standards, whether conventional surveying methods (traversing, triangulation or trilateration) or Global Positioning System (GPS) kinematic methods are used, shall meet or exceed Third Order, Class I accuracy as stated in Classifications, Standards of Accuracy and General Specifications of Geodetic Control Surveys, U.S. Department of Commerce, N.O.A.A., N.O.S., Rockville, MD. and other federal publications and standards.

C. BASIS OF BEARINGS: (Note 1)

The basis of bearings for all surveys will be the New Jersey Plane Coordinate System NAD 1983 unless the site specific RFP or Notification of Engagement award specifies an alternate bearing system. NAD 1927 Datum may be projected/converted to NAD 1983 Datum using the Federal CORPCON, or better, software to make this conversion.

Control /GPS surveys provide the basis of bearings for the property survey in a given project area. In addition to labeling the north arrow, the plan must contain a factual note that explains the Establishment of the Bearing System or similar title with language that explains how the bearing system for the project area was established and identifies the state or federal control stations used. All requirements of accuracy and standards whether conventional surveying methods (traversing, triangulation or trilateration) or Global Positioning System (GPS) kinematic methods are used; shall meet or exceed Third Order, Class I accuracy.

2. PROPERTY SURVEYS - (Note 1)

The New Jersey Licensed Land Surveyor is responsible for obtaining all records, measurements, and evidence to prepare a correct and accurate land survey, for providing a reproducible copy and paper copies of the land survey plats that depict the results of the survey, and for preparing and providing the corresponding Description of Property, prepared on company letterhead for the deed of conveyance. All deliverables must be received by the using agency within the time specified in the Engagement Award and before the passing of the date due. All property lines of the surveyed parcel must form closed polygons. All sides must be defined by mathematical survey expressions (with angular units being degrees, minutes and whole seconds of arc and horizontal distances, vertical elevations, radii of curves, lengths of arc, and New Jersey Plane Coordinate values of Northing and Easting stated in feet to two decimal places. All requirements of accuracy and standards, whether conventional surveying methods (traversing, triangulation or trilateration) or Global Positioning System (GPS) methods are used, shall meet or exceed Third Order, Class I accuracy as specified above.

A separate plan of survey and description of property shall be prepared for each tax lot or group of contiguous tax lots in common ownership. Lots that are in common ownership but are not contiguous may be grouped onto a single plan only if the detail and clarity of information is not sacrificed when the scale of the plan is reduced. The using agency may direct that the surveyors prepare a composite survey plan of all parcels within a site specific project area. A composite survey plan must contain all of the detail required for individual survey plans.

4. WETLANDS: (Note 3)

For appraisal purposes, Green Acres requires that wetland information be provided on the project reference map that usually precedes the preparation of a land survey. If the local unit or non-profit agency specifically requests work involving wetlands, it shall be one of two types identified at the time that price quotes are solicited for a site specific engagement:

a. A site specific engagement requesting that the wetlands be shown on the final plan of survey. The New Jersey Licensed Land Surveyor must obtain a copy of the appropriate New Jersey Freshwater Wetlands map for the area from the office of the county recorder or clerk. The upland limit line for those areas coded A01" on the map must be reproduced and an Approximate estimate of wetlands area in acres on the plan must be derived to one decimal place (0.1 acre). The lines may be digitized or mechanically reproduced. The areas may be derived from the digitizing process or by planimeter to within 0.5 % accuracy

5. ROUTE SURVEYS (Note 3)

When route surveys and corresponding descriptions of bicycle/walking/hiking trails or corridors are specifically requested as part of any site specific engagement, the survey will be performed using conventional or GPS surveying methods that, as a minimum, meet or exceed Third Order, Class I accuracy and shall be rotated into published NJGCS NAD 1983 and shown on the final survey plan. The area of the corridor shall be provided in acres to three decimal places (0.001 acre). A metes and bounds Description of Property shall be provided if the purpose of the survey is for a conveyance as specified in the site specific RFP. Other specifications and guidelines may be furnished at the time that price quotes are solicited for a site-specific engagement.

6. GEOGRAPHIC INFORMATION SYSTEM/LAND INFORMATION SYSTEM (GIS/LIS) SURVEY COVERAGE DATA DEVELOPMENT (Note 1 in order to provide digital file on 3 1/2" diskette, Note 3 for other purposes or to assist in a local unit or non-profit GIS/LIS effort)

When GIS/LIS Survey coverage data development is requested by the using agency, the New Jersey Licensed Land Surveyor is required to prepare a single layer CADD drawing of the surveyed parcel property lines and any interior lot lines of the surveyed property from land survey plans provided by the using agency. The file must be drawn at its real New Jersey Plane Coordinates NAD 1983 position and the view must be unrotated so that the NJPCS NORTH points orthographically up (vertical) in the screen. The polygon shall be created from the coordinate geometry of its survey point of beginning through the final course of survey and terminus point. To provide a uniform method of completing the closure of the surveyed polygons without degrading the quality of the NJPCS surveyed bearings used, the acceptable radial error of survey closure in a zero tolerance data environment shall be entered as a final closing arc between the survey point of beginning and the survey point of ending as an additional course. The diskette shall be labeled with the

following information:

*Property Owner
Project Name and Administrative Authorization Number
Municipality, County with Tax Block & Lot Number (each lot)
Survey Firm, Surveyors Name and NJPLS License Number
Date of Survey and Date of Last Revision
Area of Lot in Acres (each lot)*

The closed line work polygon is drawn with only the limited text annotation added to the same layer. The file is to be named using the first eight letters of the property owner's name unless multiple files are combined in a project area. If this is the case, the first eight letters of the project name shall be used. The file must be devoid of color, symbol, or special text codes, and in a single layer. The data must be converted to a .dxf format and submitted on 3.5" high-density diskette that has been scanned to avoid any known viruses. Additional specifications and guidelines for a specific data collection activity may be furnished at the time that price quotes are solicited for a specific engagement.

E. REQUIREMENTS OF THE PROPERTY SURVEY PLAT - (Note 1)

1. MATHEMATICAL CLOSURE: (Note 1)

All property surveys must form closed polygons with all sides defined by mathematical survey expressions (bearings and distances on all straight-line segments/tie lines; radius, arc length, delta, chord bearing and chord distance on all curved lines.) General calls along roads or waterways are unacceptable. Tie lines are to be provided along waterways, and riparian claim lines. A computer printout of the coordinate geometry for the surveyed parcel shall be submitted to demonstrate mathematical closure and verification of areas.

2. AREA: (Note 1)

The area of a parcel being surveyed is generally to be stated in acres. The area is to be rounded to the nearest one one-thousandth acre (0.001 ac.) unless said parcel is bounded, all or in part, by a waterway or a riparian claim in which case the area will be rounded to the nearest one tenth acre (0.1 ac.). If the entire parcel is less than one (1) acre, the area shall be stated in square feet as well as acres. If the total area surveyed is less than one one-thousandth acre (0.001 ac.), then the area is to be stated in square feet only and rounded to the nearest square foot. Areas must be stated for the total surveyed area, the areas within road rights-of-way, areas under water, areas of riparian claim, areas of clouded title, areas of apparent deed gores that adjoin the parcel being surveyed, areas of each lot within the surveyed tract, areas being excluded from Green Acres encumbrance or participation (such as a buffer along a public road in anticipation of potential future easements or widening or to dispose of an area around an encroachment) and the net area of Green Acres encumbrance or participation for which the local unit or non-profit group desires participation.

3. AERIAL PHOTOGRAPHS AND PLANIMETRIC MAPPING: (Note 1)

Aerial photographs or planimetric maps or manuscripts, when used by the surveyor to locate physical features upon the survey plat, will be controlled, conforming to National Map Accuracy Standards and be current to within two (2) years of the date of the survey plat, unless this time restriction is modified by the using agency. An Aerial Information block shall be placed on the plat whenever aerial data has been used.

SAMPLE AERIAL INFORMATION BLOCK:

AERIAL INFORMATION

TAKEN BY: *(organization)*

REFERENCE: *(file number or identification)*

DATE OF FLIGHT: *(within 2 years of plat)*

SCALE: *(stated as a ratio, 1:xxxx)*

4. CLOUDED TITLE AREAS (Note 1)

The New Jersey Licensed Land Surveyor is responsible for obtaining all records, measurements and evidence to prepare a correct and accurate land survey. As a result of this research, the survey may uncover areas of clouded title or ambiguities such as deed gores, deed overlaps and areas left unclear as to ownership. Although the New Jersey Licensed Land Surveyor may be able to render a professional opinion as to how a deed problem was created, the surveyor is only responsible to show on the plan of survey the record condition as it now exists. Areas of confusion are to be located by bearings and distances and the area is to be clearly stated. The plat of a parcel being acquired must show the total area surveyed, subject to an area of confusion with an adjoining area for which the tax lot and block numbers are given. Any "Apparent Deed Gore", Deed Overlap, "Clouded Title Area" or "Encroachment Area" shall be labeled on the plats of all adjoiners as an area of confusion being surveyed, and defined by bearings, distances, and area. The description of property may be written "subject to" such area, or the using agency may require that a separate metes and bounds description be prepared. Apparent gore areas found to exist as a result of the survey shall always be described by a separate metes and bounds description to provide the using agency the opportunity to obtain a quit claim deed.

PLEASE NOTE THAT GREEN ACRES GENERALLY DOES NOT FUND CLOUDED TITLE AREAS. Green Acres recommends that the local unit or non-profit obtain a quit claim of interest in clouded title areas to properly extinguish all rights that the seller may have in a clouded title area. Be advised that Green Acres funding participation does not generally extend to areas of unmarketable or uninsurable title and may be excluded by Green Acres in calculating areas for funding participation.

5. AREAS OF CLAIM OF RIPARIAN OWNERSHIP BY THE STATE OF NEW JERSEY (Note 1)

The New Jersey Licensed Land Surveyor is responsible for obtaining the official state maps showing riparian claims of the state of New Jersey and reproducing these claim lines on the survey plat. The area of the New Jersey claim is to be stated in acres to one-tenth acre (0.1 ac.). The sources to be used will be maps entitled, Lands Subject To Investigation for Areas Now Or Formerly Below Mean High Water, which have been filed in the office of the county recorder or clerk. Contact the Land Use Regulation Program for further information.

PLEASE NOTE THAT GREEN ACRES GENERALLY DOES NOT FUND THE ACQUISITION OF LANDS THAT ARE SUBJECT TO TIDELANDS CLAIMS OF THE STATE OF NEW JERSEY. Green Acres recommends that the local unit or non-profit obtain a quit claim of interest in areas that are subject to tidelands claims of the State of New Jersey to properly extinguish all rights that the seller may have in such areas, if any. Be advised that Green Acres funding participation does not generally extend within these mapped tidelands claimed areas and may be excluded by Green Acres in calculating areas for funding participation.

6. WATERWAYS (Note 1)

The New Jersey Licensed Land Surveyor is responsible for providing mathematical tie lines for survey courses that follow a waterline. The plan must clearly state the date/time of survey, the Apparent Mean High Water, Mean Low Water or other acceptable survey terms as may be appropriate (the term trash line is not an appropriate nor an acceptable survey term). The tie lines may be eliminated from the plan when the waterline is surveyed and/or defined by mathematical survey expressions with angular units being stated in degrees, minutes and whole seconds of arc, and the horizontal distances, radii of curves or lengths of arc are stated in feet to two decimal places. The area under water must be provided in acres.

PLEASE NOTE THAT GREEN ACRES REQUIRES THAT THE AREA UNDER WATER BE PROVIDED FOR APPRAISAL PURPOSES.

7. ROADS (Note 1)

The New Jersey Licensed Land Surveyor is responsible for preparing a survey and corresponding metes and bounds description, which can not in any way be construed as modifying the apparent intention of the parties. Road rights-of-way and the principals of dedication of land for road purposes shall not be taken lightly by the surveyor. The lines of surveys prepared for the acquisition of land are to run with the lines of the deed description as written in the record unless the site specific engagement request directs some other course of action. If the fee title extends to the center of a public road, the survey lines should run to the center of the public road. The survey must also provide the bearings and distances of the right-of-way sidelines, as well as the area of the public right-of-way. The area in the right-of-way is subject to the paramount rights of the public and possible private rights and the area shall be stated as a separate item on both the plat and in the description. If there has been no dedication to define the sidelines of the right-of-way, the area of the right-of-way is

defined as the area of the paved or traveled portion of the roadbed. Private roads crossing the parcel being surveyed must also be shown. The survey must indicate recording information for maps, deed book number and page number, or other pertinent information regarding the dedication of public ways or private easements. The surveyor is cautioned that a reference to a Green Acres Participation or Encumbrance buffer strip adjoining a public right-of-way labeled for “future road purposes” may be construed as an offer of dedication that is irrevocable on the part of the owner. It is suggested that participation limit line or buffer area be used in order allow the using agency a greater flexibility for the future use of these areas.

PLEASE NOTE THAT GREEN ACRES GENERALLY DOES NOT FUND THE AREA WITHIN PUBLIC RIGHTS-OF-WAY. Green Acres recommends that the local unit or non-profit instruct the surveyor to run the lines of survey into the right-of-way, if appropriate, to properly extinguish all rights that the seller may have in the public right-of-way. The description will include language that the land is subject to the paramount rights of the public in up to the amount of acres situate within the lines of the road. Be advised that Green Acres funding participation does not generally extend to this area and may be excluded by Green Acres in calculating areas for funding participation.

8. SUBDIVISION OF LANDS (Note 1)

The State of New Jersey is exempted from municipal subdivision ordinances. This rule is supported by case law. Other entities, such as municipal, county or non-profit groups operating under the Green Acres Program, Local Government and Non-Profit Organization Funding Program using this Scope of Work for Professional Surveying Services may not be exempted. A part of a lot intended to be acquired is sometimes referred to as a Partial Taking, the limits of which must be clearly labeled on the plan. The bearings and distances of the dividing line must be shown on the plat. The Area to be Acquired and the Area to Remain must be clearly labeled, and the areas stated in acres must be provided on the plan. When the original lot to be surveyed is ten (10) acres or less, the entire lot shall be surveyed and shown on the plat. When surveying the partial taking of a lot originally in excess of ten (10) acres, the plat need only show physical features and improvements of the Area Remaining within 500 feet of the dividing line. To visualize and understand the effect of the partial taking, the plat must show the entire lot, even if the Area Remaining is not surveyed but is determined from tax map or deed data. The surveyor must indicate the percent of area being acquired. Certification blocks required under the Map Filing Law shall be eliminated from subdivision plans prepared for state using agencies.

9. MATHEMATICAL SURVEY EXPRESSIONS (Note 1)

The New Jersey Licensed Land Surveyor is responsible for defining all courses of the parcel being surveyed by mathematical survey expressions. All straight line Bearings and distances will define courses with angular units stated in degrees, minutes and whole seconds of arc. Radius, arc length, chord bearing and chord length, and the horizontal distances will define curves; radii of curves or lengths of arc must be stated in feet to two decimal places.

10. LEGEND OF ACQUISITION (Note 1)

The New Jersey Licensed Land Surveyor is responsible for providing a standard title block as required by the State Board of Professional Engineers & Land Surveyors. In addition to the surveyor's standard title block, all plats must contain the following Legend of Acquisition, listing each lot surveyed and providing an Area Summary for each lot surveyed. The "Area Summary" shall list individual lot areas for categories as appropriate. Repetition of lot numbers may be necessary to insure that all areas within each lot are accounted for.

SAMPLE LEGEND OF ACQUISITION BLOCK

LEGEND OF ACQUISITION

PURPORTED OWNER: _____ OWNER ID No. _____
 STREET ADDRESS _____
 PROJECT NAME _____ ADMIN. AUTH. No. _____ SURVEY REF. No. _____
(repeat the following as needed, deleting any unused/inappropriate headings)
 BLOCK __ LOT __ INTEREST *(percentage to be acquired in fee and/or easement to be obtained)* ACRES __
 SUBJECT TO: ACRES IN ROAD _____ ACRES OF NJ CLAIM _____ ACRES OF OVERLAP _____
 ACRES WATER *(exclusive of area included in NJ CLAIM above)* ACRES CLOUDED _____
 MUNICIPALITY _____ COUNTY _____

AREA SUMMARY:

TOTAL AREA ACQUIRING _____ ACRES
 TOTAL EASEMENT AREA TO BE OBTAINED _____ ACRES
 TOTAL AREA IN ROAD _____ ACRES
 TOTAL AREA NJ CLAIM _____ ACRES
 TOTAL AREA OVERLAP _____ ACRES
 TOTAL AREA UNDER WATER (OUTSIDE NJ CLAIM) _____ ACRES
 TOTAL AREA CLOUDED TITLE _____ ACRES
 NET AREA SUBJECT TO GREEN ACRES ENCUMBERENCE _____ ACRES

11. CORNER MARKING (Note 1)

The New Jersey Licensed Land Surveyor is responsible for determining the ultimate user of the survey, the survey plat and the corresponding description(s) as defined by the New Jersey State Board of Professional Engineers and Land Surveyors. For the purposes of this State Board rule, the Ultimate User shall be considered the Local Unit/Using Agency and the Local Government and Non-Profit Organization Funding Program. To clearly define where corner markers must be set and where they may be omitted, the following shall apply:

- a) Corner markers must be set at the limits of a project area where the limits adjoin private lands not being acquired as a part of the project. This shall apply to fee acquisition and easement area acquisitions for both public access and non public access easements, unless this requirement is modified by the using agency at the time that a site specific engagement is requested.

- b) Corner markers shall be omitted when corners are common to other lands

owned by the Local Unit/Using Agency, the corners are within the project area limits, are surrounded by other lands being acquired as part of the overall project being surveyed, the corners are along a public right-of way, or the corners fall within a waterway bed, unless, in the professional judgment of the surveyor, the corners should be set. Corner markers that are omitted must be identified on the plan as omitted by contractual agreement using the language required by the State Board of Professional Engineers and Land Surveyors. (See N.J.A.C. 13:40-5.1/d).

c) A detail of the stamping or casting of each type of cap, disk, shiner, etc., actually set to mark corners shall be drawn on the survey plan and shall be stamped with the name of the survey firm and include the month and year set.

d) At the time of the survey, any corner location that is found to be inaccessible must be set as an offset on line. The marker must be set on line as near to the corner as is practical, stamped "OFFSET" on the cap, and clearly identified on the plan as having been set back from the corner, with the actual distance to the corner clearly labeled.

e) To maintain the coordinate system for potential future surveys or resurveys, the surveyor must set a minimum of two concrete monuments, visible from one to another whenever possible, at each grouping of contiguous parcels in a project area. One monument is to be selected as a description point of beginning and the NJSPCS Northing and Easting values must be stated. If the corner selected to be the Description Point of Beginning was previously marked, then a monument must be set on an alternate corner to maintain the two monument minimum requirement.

f) Corner markers that are found in the field to be within a radius of 1.5 feet of the true corner, shall be presumed to mark the corner and no new corner marker shall be set. The plan of survey shall clearly indicate the offset distances (north/south and east/west) of the found marker from the true corner.

PLEASE NOTE THAT GREEN ACRES STRONGLY RECOMMENDS THAT ALL PROPERTY CORNERS MARKERS BE SET AND TWO OF THE MARKERS BE CONCRETE MONUMENTS WITH NJSPCS VALUES GIVEN. The local unit or non-profit is given discretion to omit corners that are not needed without jeopardizing the local unit or non-profits ability to enforce compliance on easement areas or in the course of patrolling the park or open space.

The New Jersey Licensed Land Surveyor is responsible for the work that is produced under signature, seal and certification. The following certification must appear on the plan of survey:

I hereby certify to the State of New Jersey, and *{name of local unit or non-profit}* and on their behalf, to their title insurer that this plan is based on an actual field survey conducted under my immediate supervision and that this survey meets or exceeds the federal requirement for Third Order, Class I Accuracy. I further declare, to best of my professional knowledge and belief, that this plan is a correct and accurate representation of conditions existing on the site as of *(month / year)*, subject to such notes as may appear hereon.

Signature of Surveyor

Date Signed

New Jersey Licensed Land Surveyor No.

13. LOCATION MAP (Note 1)

A location map must be provided in the upper right hand corner of the plat indicating the site. A portion of a U.S.G.S. Quadrangle 1" = 2000' is preferred and if used, the name of the quad is to be stated. The scale, north arrow and the site must be shown.

14. PLAT SIZE (Note 1)

The final survey plat is to be prepared or reproduced on 8 1/2" x 14" (Legal Size) paper or folded to size with the Standard Title Block facing up. Clarity of information will determine the actual size of the plat, however standard sizes in accordance with the Map Filing Law are required. Paper copies of the survey that are submitted in a tube or rolled without being of the proper folded size are not acceptable. The reproducible or sepia type mylar also required must be submitted in a tube or rolled without any creases. If it is necessary to produce a booklet type plan of the area surveyed the first sheet or cover sheet of any such booklet must be an index to show alignment with the remaining sheets of the survey. Each sheet must contain the required elements of the survey such as title block, north arrow, signature and seal, etc.

15. MISCELLANEOUS ITEMS ON PLAT (Note 1)

The New Jersey Licensed Land Surveyor is responsible for presenting all of the findings on the final survey plat. In addition to all the State Board of Professional Engineers and Land Surveyors requirements and those previous requirements specified above, the surveyor must show the following items:

- a. Street address of the subject parcel being surveyed only if the municipality has assigned a common street number;
- b. Tax Block and Lot number of the parcel being surveyed and those of adjoining;
- c. Any permanent type buildings, paved or concrete improvements or structures;
- d. Any utility easements, visible or known of record, overhead wires or pole lines

within the parcel being surveyed (except that those within a dedicated public road right-of-way may be omitted);

e. Encroachments clearly drawn, labeled and dimensioned. A detail of the encroachment may be necessary to clearly show sheds, buildings or structures.

f. Watercourses, including the name and showing the direction of flow and area contained must be drawn and labeled on the plan.

g. Drains and sewers that are visible on the surface of and within the limits of the parcel but drains and sewers within a dedicated public road right-of-way need not be shown;

h. The name of record owners and the latest deed book and page reference for adjoining lands to indicate that those records had been examined in the survey process and that there are no areas of confusion in the record, except for those that may be shown on the plan, if any;

i. Roads not open are to be so indicated. Paper streets that have not been vacated are subject to possible public and or private rights and the area contained by them must be indicated on the plan;

j. If the survey indicates that the municipal tax map erroneously locates the parcel, this discrepancy should be noted on the plat;

k. The deed book and page number of the reference deed actually used must be indicated somewhere on the plan in a factual way.

These items shall not be excluded or limited in appearance through the use of notes except that the surveyor may limit his search of records to the obvious and reasonable and may produce a plan noting that the work is subject to the findings of an accurate and up-to-date title search by a competent title company.

16. POINT OF BEGINNING (Note 1)

The point of beginning used in the metes and bounds description must be clearly labeled Description Point of Beginning or P.O.B. (or similar) and must be tied into a corner of record or road intersection. The NJPCS NAD 1983 Northing and Easting coordinate values stated in feet to two decimal places must be labeled on the plan and stated in the description. The surveyor must set a concrete monument at the point of beginning for each parcel, unless this requirement is waived or modified by the using agency at the time that the bids for a site-specific engagement are solicited.

F. DEED DESCRIPTION FORMAT - (Note 1)

The New Jersey Licensed Land Surveyor is responsible for preparing an original metes and bounds type description of the property that has been surveyed. The description shall be separate and apart from the prepared final plan of survey and must be submitted on an original company letterhead 8 1/2" in width by 11", 13" or 14" in length. The media is to be a good quality paper; not legal left edge lined paper or plain paper. This description is to agree with the results of the survey in every particular and for that reason, the description must not include any information that does not appear either graphically or factually stated in note form on the plan. All courses of the description must be numbered in sequence. One description may include several contiguous tax lots in common ownership grouped together into one or more survey tracts. The description must be labeled "DESCRIPTION OF PROPERTY", contain a heading, describe the beginning point, (including its New Jersey State Plane Coordinates in NAD 1983) and will continue in the said bearing system. The total area of the survey and of each lot within the surveyed parcel must be clearly stated in the description. Qualifying and augmenting clauses if used shall also state particular areas: specifically the area within public road rights-of way or an included mapped riparian claim of the State of New Jersey. a riparian claim of the State of New Jersey with the area stated. (If the claim is cut out of the lines of the survey and the survey line binds along the riparian claim lines of the State of New Jersey, the described area is not subject to the claim. Remember that if there has been a riparian grant made from the State of New Jersey that runs with the surveyed parcel, it must be included in the survey and described in the metes and bounds description. First describe the parcel then describe the grant following the clause "together with, and subject to conditions of a riparian grant from the State of New Jersey" with the area stated.

7. ALL AREAS IDENTIFIED ON THE SURVEY MUST BE STATED (Note 1)

The areas of all lots and within the surveyed parcel must be clearly stated in the description as well as on the plan of survey. If there is more than one lot included in the surveyed parcel, state the total area of the survey and the area for each included lot according to the categories indicated on the Surveyor's Certification and Summary Form. Additionally, provide separate areas for other possible situations, if any, as previously indicated.

8. FINAL PARAGRAPH OF DESCRIPTION (Note 1)

To provide a uniform closing call for survey the final paragraph in all descriptions must read as follows:

The above description was written pursuant to a survey of property designated as Block _____, Lot _____, on the municipal tax map of *municipality name*, County of *county name*, State of New Jersey. Said survey was prepared by *Your firm's name and address, date*, revised through (*__last revision date, if any__*) and is marked as file No. _____.

9. SIGNATURE AND SEAL OF THE NEW JERSEY LICENSED LAND

SURVEYOR (Note 1)

The separate metes and bounds Description of Property must bear the original ink signature and embossed seal of the surveyor who prepared the survey plan. A rubber stamp facsimile or mechanically reproduced signature is not acceptable.

G. NEW JERSEY LICENSED LAND SURVEYOR - (Note 1)

1. ORIGINAL SIGNATURE AND SEAL (Note 1)

All survey plans and the original description must be signed and sealed by a New Jersey Licensed Professional Land Surveyor responsible for the work who is a member of the survey firm under contract. To insure that the plan is the product of the licensee, the signature must be the original signature in ink on each copy of the plan of survey and original description. A rubber stamp or computer generated signature is unacceptable.

2. RESEARCH (Note 2)

The New Jersey Licensed Land Surveyor is responsible for obtaining sufficient documentation and evidence to render a survey plat that is correct as well as accurate to the stated specifications and standards. The using agency will not withhold information from the surveyor; for site specific bidding purposes, the surveyor shall conduct all research required completing the work by the due date.

3. FIELD PROCEDURES AND CREW RESPONSIBILITIES (Note 2)

The New Jersey Licensed Professional Land Surveyor shall be responsible for the work of all survey crews operating from the firm. The crew shall endeavor to cause as little inconvenience as possible to property owners when conducting the field survey. Whenever possible, random traverse lines shall be run within the property being surveyed rather than upon the lands of an adjoiner. If traverse lines are run upon the lands of an adjoiner, no clearing of lines shall be conducted without the prior written consent of the party whose name appears as the property owner as indicated in the tax rolls of that municipality. Copies of the consent must be forwarded to the using agency. Painting and flagging evidence shall be kept to a minimum whenever possible. Littering or damaging the property may subject the offenders and licensee to possible civil action. Large trees shall not be cut to clear line without the prior consent of the using agency. Brushing-out of lines shall be kept to a minimum. The surveyor is responsible for compliance with regulations, including procuring of permits with regard to disturbance of wetland vegetation.

H. NOTIFICATION OF PARTIES AND SURVEYORS RIGHT OF ENTRY (Note 1)

Pursuant to the Underground Facility Protection Act, NJSA 2C:17-5, three business days prior to starting a job where digging to look for corner markers or the setting of new corner markers will be required, the New Jersey Licensed Land Surveyor shall call 1-800-272-1000 for a mark out of underground utilities on any affected properties. Pursuant to the Surveyor's Trespass Law, NJSA 45:8-44.1, the New Jersey Licensed Land Surveyor has the authority to go on, over and upon lands of others during reasonable hours to make a land survey. Pursuant to the provisions for Preliminary Entry of the Eminent Domain Statute, NJSA 20:3-16, agent surveyors of a prospective condemnor may enter lands during reasonable business hours to make a land survey. Pursuant to the provisions of NJSA 13:8A-16, as an agent of the Commissioner of the Department of Environmental Protection, land surveyors may enter on any lands for the purpose of making surveys or other inspections. The New Jersey Licensed Land Surveyor shall be responsible for sending written notice 10 days prior to entry unless waived by the using agency to the property owner or designated representative and occupant, if any, and any adjacent property owner upon whose land it may be necessary to enter to complete the survey.

Name and signature of New Jersey Licensed Land Surveyor

c. (____project manager, using agency____)
(____municipal police department____)

I. DELIVERABLES – (Note 1)

The New Jersey Licensed Land Surveyor is responsible for submitting all deliverable work products on or before the date specified in a site-specific engagement. As appropriate for the type of survey ordered, the deliverables shall include all of the following or such other items as may be directed in the site-specific RFP:

1. To the local unit/using agency – Copies of all written notices sent to the property owners or designated representatives and occupants, if any, and adjacent property owners upon whose land it may have been necessary to enter to complete the survey. The notices shall have been prepared on company letterhead and a copy sent to the municipal police department. This demonstrates to the local unit/using agency that surveyor has complied with the notifications requirement;

2. To the local unit/using agency – A computer printout of the coordinate geometry (COGO) survey data files demonstrating that the mathematical survey expressions used to define the parcel as used on the plan and in the description of the property form a closed polygon and verify that the areas as stated are correct. The precision of the survey must be stated and the bearing and distance of the radial error of closure of the adjusted survey (distance from the terminus of the final course to the point of beginning) must be given. This demonstrates to the local unit/using agency that surveyor has checked the drafting on the plan and bearings and distances in the metes and bounds description;

3. To the local unit/using agency - Six (6) signed, sealed and dated paper copies of the survey plat depicting the results of the field and record investigation and survey. These plans must be folded to approximately 8 ½" x 14" with the title block facing up prior to being submitted. Two (2) of the six (6) copies will be forwarded to Green Acres by the local unit/using agency;

4. To the local unit/using agency - One (1) full size original type mylar of the survey plat which must be dated, bear the original signature and embossed sealed of the Licensed Land Surveyor and must be suitable for recording in the county. This plan is to allow the local unit/using agency an opportunity to produce non record copies of the survey plan as needed and may be submitted to the using agency rolled and in a tube;

5. To the local unit/using agency - One (1) 8 ½" x 11" photographically reduced copy of the survey plan which shall be reproduced onto mylar. This reduced copy should not be bent or folded and may be submitted between cardboard sheets. This sheet must be a true reduction of the original plan as submitted and may not be altered in order to provide clarity of data. (It is understood that data appearing on this plan may not be entirely legible. This plan is not to be sealed with the embossed seal of the New Jersey Licensed Land Surveyor);

6. To the local unit/using agency - Six (6) originals of the metes and bounds Description of Property that corresponds to and has been derived from the plan of survey. Each description must be prepared on original company letterhead (8 ½" x 11" or 8 ½" x 14") and must bear the original signature and must bear the raised impression type seal of the New Jersey Licensed Land Surveyor who has prepared the description and plat. The description must not contain information not also stated in a factual note or shown graphically on the survey plan (Two (2) of the copies will be forwarded to Green Acres by the local unit/using agency);

7. To the local unit/using agency - Six (6) paper copies of the original 8 ½" x 11" photographically reduced survey plan attached to each copy of the description. (These will be attached to each original Description of Property prepared in item 6 above and recorded with the deed. Two (2) of the copies will be forwarded to Green Acres by the local unit/using agency attached to the two descriptions)

8. To the local unit/using agency - One (1) 3 ½" floppy diskette of the parcel survey lines in a .dxf format for GIS/LIS Survey coverage data development. This is a single layer CADD drawing of the surveyed parcel property lines and any interior lot lines of the surveyed property. The file must be drawn at its real New Jersey Plane Coordinates NAD 1983 position and the view must be unrotated so that the NJPCS NORTH points orthographically up (vertical) in the screen. The polygon shall be created from the coordinate geometry of its survey point of beginning through the final course of survey and terminus point. In order to provide a uniform method of completing the closure of the surveyed polygons without degrading the quality of the NJPCS surveyed bearings used, the acceptable radial error of survey closure in a zero tolerance data environment shall be entered as a final closing arc between the survey point of beginning and the survey point of ending as an additional

course.

Label the diskette with the following information:

*Property Owner
Project Name and Administrative Authorization Number
Municipality, County with Tax Block & Lot Number (each lot)
Survey Firm, Surveyors Name and NJPLS License Number
Date of Survey and Date of Last Revision
Area of Lot in Acres (each lot)*

The file is to be named using the first eight letters of the property owner's name unless multiple files are combined in a project area. If this is the case, then use the first eight letters of the project name. The file must be void of color, symbol or special text codes and in a single layer. The data must then be converted to a .dxf format and submitted on 3.5" high density diskette which has been scanned to avoid any known viruses; (This diskette will be forwarded to Green Acres by the local unit/using agency) and

9. One (1) completed Surveyor's Certification and Summary Form, bearing the original signature and date signed, and the embossed seal of the New Jersey Licensed Land Surveyor who prepared the survey, survey plat and Description of Property. The form shall be prepared on 8 1/2" by 14" single sided white paper of good quality and must accompany all other deliverables (The original certification will be forwarded to Green Acres by the local unit/using agency):

(FULL DOCUMENT APPEARS ON THE NEXT PAGE)

**GREEN ACRES PROGRAM
LOCAL GOVERNMENT AND NON-PROFIT ORGANIZATION FUNDING PROGRAM**

SURVEYOR'S CERTIFICATION & SUMMARY FORM

PROJECT INFORMATION

GREEN ACRES PROJECT No. _____

PROJECT NAME: _____

PARCEL INFORMATION

PARCEL OR OWNER ID: _____ SELLER'S NAME _____
(REPEAT BLOCK, LOT, INTEREST, ETC. AS NEEDED TO IDENTIFY ALL PARCELS BEING WITHIN THE LINES OF SURVEY)

BLOCK: _____ LOT: _____ INTEREST: _____ % ACQUIRING _____ ACRES ACQUIRING _____

MUNICIPALITY: _____ COUNTY: _____

SURVEY INFORMATION

PREPARED FOR LOCAL UNIT/USING AGENCY: _____

SURVEY FIRM: _____

NAME OF SURVEYOR: _____ NJPLS No. _____

DATE ON SURVEY PLAN: _____ DATE SIGNED: _____ DATE LAST REVISED: _____

TITLE INFORMATION

TITLE COMPANY _____
(IF NO COPY OF SEARCH WAS SUPPLIED BY USING AGENCY, PLEASE STATE ASUBJECT TO FINDINGS OF TITLE SEARCH ~~BE~~ ABOVE)

COMMITMENT No. _____ DATE OF COMMITMENT _____

DEED USED FOR REFERENCE: _____

CERTIFICATION

I hereby certify that I have completed the above survey in accordance with the Green Acres Scope of Work for Professional Land Surveying Services contained in a written contract with the above using agency. Based upon an actual field survey of the above property conducted under my supervision, my examination of field and record evidence and the above title report, (if any supplied by using agency), the parcel being acquired consists of a total surveyed area of _____ acres, **subject to** the following:

EASEMENTS _____

RESTRICTIONS _____

CONDITIONS: _____

ROAD: _____ AC. CLAIMED AS NJ TIDELANDS: _____ AC. OVERLAP: _____ AC.

UNDER WATER _____ AC. GORE BETWEEN ADJOINING LANDS _____ AC.

AREA OF CLOUDED TITLE: _____ AC. NET AREA GREEN ACRES ENCUMBERENCE: _____ AC.

ENCROACHMENTS (YES) _____ (NO) _____ NUMBER OF SEPARATE DESCRIPTIONS PREPARED _____

SURVEYOR'S SIGNATURE, DATE & SEAL

SURVEY REVIEWED BY GREEN ACRES

Local Unit Checklist
When using the
“SCOPE OF WORK FOR PROFESSIONAL LAND SURVEYING
SERVICES”
2000 Edition

PRIOR TO DELIVERING SURVEYS AND DESCRIPTIONS TO GREEN ACRES,
please take a moment to examine the documents you are about to send to insure that the
following key elements have been addressed;

EXAMINATION KEY ELEMENTS OF PLAN

- ___ Plan signed by NJ licensed land surveyor, dated and bearing a raised impression seal
- ___ Point of Beginning labeled, tied into corner of record, NJPCS with monument set
- ___ North arrow, title block, and ROW widths noted
- ___ North Arrow Bearings refer to NJPCS North and East coordinate values given on POB
- ___ Areas in acres provided for total intended acquisition and individual lots within survey
- ___ Road ROW widths and area stated if included in lines of survey
- ___ Riparian claim lines of the State of NJ and area stated if included in the lines of survey
- ___ Areas of any overlaps or areas of clouded title if included in the lines of survey
- ___ Area under water for water bodies included within the lines of survey
- ___ Areas of adjoining deed gores clearly shown and labeled (may be taken in quit claim)
- ___ Subdivided partial acquisitions of lots clearly labeled with calculated areas given
- ___ Legend of acquisition provided (owner’s name, blocks/lots, and Project Name and Number)
- ___ Corner markers set at limits of the project area and note if any corner omitted
- ___ Location map such as USGS or other labeled to show site
- ___ Tax Block and Lot numbers and adjoining owners’ names noted on plat
- ___ Encroachments identified and dimensioned to nearest property line
- ___ Standard certification to the Local unit, the State of New Jersey and title company
- ___ The area of Green Acres restriction clearly noted

EXAMINATION KEY ELEMENTS OF METES AND BOUNDS DESCRIPTION

- ___ Original Company Letterhead
- ___ Strictly follows format
- ___ All areas of survey stated
- ___ Original signature of N.J. Lic. Land Surveyor on document (no rubber stamp)
- ___ Original raised seal of N.J. Lic. Land Surveyor on document
- ___ Final paragraph of description references survey
- ___ Reduced copy of plan attached to descriptions
- ___ Proofread Description of Property – No information included that is not also on plan.

If the survey package is deficient for any of the above items, the survey may not be
eligible for reimbursement. The survey items that are forwarded to Green Acres are
subject to review for acceptance.

DELIVERABLE TO GREEN ACRES

The following is a checklist to be used for survey items that are to be forwarded to Green Acres and are subject to review for acceptance:

- ___1) Two (2) signed, sealed and dated paper copies of the survey plat: (one for the Green Trust mini file and one for the GIS/LIS Section.)
- ___2) Two (2) copies of the original metes and bounds "Description of Property": one for the Green Trust mini file and one for the GIS/LIS Section with a copy of the 8 ½" x 11" reduced survey plan attached to each.
- ___3) One (1) 3 1/2" floppy diskette of the parcel survey lines in a .dxf format for the GIS/LIS Section.
- ___4) One (1) completed "Surveyor's Certification and Summary Form for the Green Trust mini file. After in house review, a completed copy will be forwarded to the GIS/LIS Section.